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Wound Care for Post Partum Patient with Wound Dehiscence: Case Study

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Abstract: Wound dehiscence is a significant risk following a caesarean section, with approximately 14% of cases occurring post-surgery. At Dr. Slamet Garut Hospital in West Java Province, the incidence of wound dehiscence after caesarean section was 1.35% in 2019, and this number has been increasing annually. In 2019, there were 4 patients with wound dehiscence in the Lower Kalimaya room and 6 patients in the Jade room. A case study was conducted to evaluate the effectiveness of treating wound dehiscence using 0.9% NaCl, and the results indicated that this treatment could expedite the healing process. This study focused on patients with delayed post-surgical recovery and demonstrated that wound treatment using 0.9% NaCl can be beneficial for patients with specific wound dehiscence characteristics.

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Introduction

Wound dehiscence is known as Burst abdomen or open surgical wound, defined as a condition characterized by the opening of part or all the surgical wound accompanied by protrusion or expulsion of the contents of the abdominal cavity. This situation is a result of failure in the surgical wound healing process. Wound dehiscence is the first complication of abdominal surgery (Zabaglo & Sharman, 2021; Rosen & Manna, 2022; Gillespie et al., 2023).

Wound dehiscence or abdominal burst is a mechanical failure of surgical incision wound healing that involves damage to the surgical incision site. Abdominal burst is part of abdominal wound dehiscence which is defined as postoperative separation of the musculoaponeurotic layer of the abdomen, which appears several days after surgery and requires further intervention. Abdominal burst is a serious postoperative complication (Ramshorst, 2014; Arya & Kumar, 2021; Hermawan et al., 2021).

Proper wound care is one of the external factors that really supports and influences the wound healing process. The application of appropriate wound care techniques is carried out both while the patient is still in the operating room and after the patient has been transferred or treated in the treatment ward. Wound care is a daily task for nurses and midwives in the maternity ward, so nurses and midwives must use correct wound care skills. This aims to prevent post-SC wound infections and healing of post-SC surgical infections (Melbourne, 2023; Nguyen et al., 2023; Yao et al., 2013).

Method

This study was a descriptive case study integrating nursing care and literatures review. The focus of this

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study is on patients experiencing wound dehiscence with delayed recovery post-surgery. Participants were chosen randomly, meeting criteria such as being in patients with post-surgical slowing recovery who can communicate and are conscious. During the assessment, patients exhibited signs and symptoms, including medium-scale pain in the wound area, wound infection, pus, and open wounds. The author utilized tools, including liquid NaCl 0.9%, a sterile tool set, and sterile hands Coen. Data were meticulously recorded on the Nursing Care Form. The treatment intervention involving NaCl 0.9% aligns with planning guidelines from the Indonesian National Nurses Association (PPNI), referring to relevant sources such as SDKI, SLKI, and SIKI for nursing diagnoses, aims, objectives, plans, and action evaluation. The implemented intervention included the gentle removal of dressing and plaster, cleansing with NaCl or a non-toxic cleanser as necessary, debridement of necrotic tissue, application of a dressing suitable for the wound type, and the maintenance of sterile technique. This conforms to the Indonesian Nursing Intervention Standards (SIKI), rooted in evidence-based practice, and executed under nurse supervision (Tim Pokja SDKI DPP PPNI, 2017; Tim Pokja SIKI DPP PPNI, 2018; Tim Pokja SLKI DPP PPNI, 2022).

The intervention occurred on February 7, 2023, at 07:00 in the Jade Room at Dr. Slamet Garut Hospital. A 34-year-old patient, treated in the Jade Room at Dr. Slamet Garut, suffered from wound dehiscence following a post-operative Sectio Caesare on January 11, 2023, with limited knowledge about post-operative wound care.

Participants provided consent for the publication of their health data without identity disclosure (anonymous). Nursing problems that arise when the patient is first treated were acute pain and slowed recovery after surgery. The patient was treated in the room and underwent wound care from 7 to 9 February 2023. several nursing actions were carried out to treat acute pain and wound care using 0.9% NACl as well as collaboration in the form of administering painkillers and antibiotics.

Result and Discussion

The use of 0.9% NaCl for wound maintenance has shown positive results in patients, including a decline in infection, reduced production of persistent pus, decreased pain, and a visible improvement in the skin color in the infected area. The nursing process implemented in this case study, based on evidence-based practice (EBP), has led to positive outcomes for patients with wound dehiscence.

A study titled "Effectiveness of NaCl 0.9% in Healing Surgical Wounds in Maternal Caesarean Section," the findings emphasize the significant impact of NaCl 0.9% on the healing process of surgical wounds in maternal caesarean section procedures (Mutiah et al., 2022). Another study showed that there was no significant difference in wound care using Sodium Cloride 0,9% and Povidone iodine 10% (Rakhimah, 2023). But, a study by Lestari and Kunidah (2016), which found that the wound healing process in post-caesarean section patients using 0.9% NaCl resulted in healing within 3 days for several respondents (Lestari & Kunidah, 2020).

NaCl 0,9% or Saline solution, also known as saline, is a sterile saltwater solution commonly used for wound care. It is a gentle formula that helps reduce burning or stinging and is regarded as the most appropriate and preferred cleansing solution for wound care. It is a nontoxic, isotonic solution that does not damage the tissue. Saline solution is often referred to as a physiological serum because the solution is dosed at the same concentration as the human body. It adequately cleans the wound without causing pain. Research has indicated that irrigation with water or warm saline at low pressure during surgery can reduce the bacterial load, and appropriate wound dressings can improve wound healing by maintaining moisture and providing some degree of occlusion. Saline solution is also available for purchase in various stores and online retailers, and it is important to follow the instructions for use provided with the product (Fernandez et al., 2022; Sepilian & Wood, 2022)

Conclusion

A nursing can use NaCl 0.9 % on wound care.

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